

(a) **“First, the applicant is reminded that a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill without any specific hint or suggestion in a particular reference.”**

The Federal Circuit, in *In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002) has addressed this contention and expressly rejected it. Enclosed are copies of two pages from the leading patent treatise, “Chisum on Patents,” §5.04[1][e][iv], discussing the Federal Circuit’s decision, and stating the holding:

“the PTO board erred in stating that it could reach a conclusion of obviousness based on ‘common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference’.”  
(emphasis added).

Also enclosed is a copy of the case, which leaves no room for argument on this point--any rejections that are being maintained based on “common knowledge and common sense” must be withdrawn.

(b) **“Second, Temple provides a flexible cable connected to a toggle bar so as to provide a mechanism that is simple in construction and in operation.”**

It is acknowledged that Temple provides a flexible cable and that the device is simple in construction and operation. This has no particular relevance, however. The rejections are based on modifying Onofrio, and the question is not how well a flexible cable works in Temple; the question is whether there was any motivation to use a flexible cable as a substitute for the rod in Onofrio.

The Examiner has not shown that there was any such motivation, so there is no *prima*

*facie* basis any rejections on this ground as Applicant has previously pointed out. Moreover, the proposed substitution is contrary to the teachings of Onofrio for at least the following reason: Onofrio is a fastener used to fasten drywall panels, as taught at Col. 2, lines 23 - 25. It employs, not just any rod, but a threaded rod, the rod being threaded so that the relative positions of the rod and the wings 20 can be adjusted for tightening the fastener, as taught at col. 3, lines 33 - 67. A flexible cable cannot be threaded and is, for this reason among others, not an appropriate substitute for the rod.

- (c) **“Further, by providing a flexible cable instead of using a rod . . . will not affect the mechanism or the operation of the bolt assembly.”**

This is both incorrect and irrelevant. It is irrelevant because MPEP §2143.01 states emphatically: **“FACT THAT REFERENCES CAN BE COMBINED OR MODIFIED IS NOT SUFFICIENT TO ESTABLISH *PRIMA FACIE* OBVIOUSNESS”** (emphasis in original). It does not establish obviousness to argue that Onofrio would work just as well if the rod were replaced with a flexible cable, even if this were true. But it is not true, and so the statement is also incorrect, as explained in (b) above.

- (d) **“As seen in Attachment #1, Hamlin [U.S. Patent No. 4,615,514] teaches a plug (36) that includes a recess capable of receiving and holding a toggle bar in a closed position.”**

This statement contains a critical error that renders it incapable of supporting the rejections. It is true that Hamlin discloses a structure that is capable of locking the arm members 20 and 22 *in the position shown in Attachment #1*. However, that is not the claimed “closed

position.” To the contrary, the arm members 20 and 22 are shown held in an “open position” that would prevent the device from being inserted into, or withdrawn from, the hole. So Attachment #1 is simply more evidence that Hamlin fails to teach or suggest the subject matter claimed.

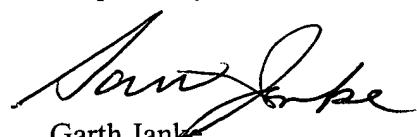
(e) **“As to the rejection of claims 58 and 59, although the arguments presented by the applicant with respect that the prior art does not teach or suggest the method claimed, the previous rejection to the claims has been withdrawn and a new grounds of rejection has been made on the record in view of Onofrio, as modified by Temple and Hamlin, since Burbidge teachings are irrelevant to the rejection of these claims.”**

The rejections of claims 58 and 59 merely recite the claim elements along with a list of references, Burbidge now being omitted from the list. No explanation is provided as to how or where the references allegedly teach or suggest the claimed invention, and so these rejections do not meet the basic requirements of a *prima facie* case (MPEP §2142 *et seq.*)

### Conclusion

For the reasons explained above, none of the arguments made in the “Response to Arguments” section of the Office Action is effective to rebut the Applicant’s prior showing that the rejections stand unsupported. Accordingly, the Examiner is respectfully requested to allow the claims and pass this case to issue.

Respectfully submitted,



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Similarly, in *In re Lee* (2002),<sup>100</sup> the court held that the PTO board erred in stating that it could reach a conclusion of obviousness based on “common references showing (1) conventional trash bags, and (2) “children’s art” with jack-o’-lantern faces on the outside of paper sacks (Holiday and Shapiro). The court reversed because the PTO’s broad conclusory statements regarding the teaching of multiple references, standing alone, were not “actual evidence” supporting a suggestion to combine.

“All the obviousness rejections affirmed by the Board resulted from a combination of prior art references, e.g., the conventional trash or yard bags, and the Holiday and Shapiro publications teaching the construction of decorated paper bags. . . . To justify this combination, the Board simply stated that ‘the Holiday’ and Shapiro references would have suggested the application of . . . facial indicia to the prior art plastic trash bags. . . . However, rather than pointing to specific information in Holiday or Shapiro that suggest the combination with the conventional bags, the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other—in combination with each other and the conventional trash bags—described all of the limitations of the pending claims. . . . Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the children’s art references (Holiday and Shapiro) with the conventional trash or lawn bag references, nor does the Board make specific—or even inferential—findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any other factual findings that might serve to support a proper obviousness analysis.

“To the contrary, the obviousness analysis in the Board’s decision is limited to a discussion of the ways that the multiple prior art references can be combined to read on the claimed invention. For example, the Board finds that the Holiday bag reference depicts a ‘premanufactured orange’ bag material, . . . finds that Shapiro teaches the use of paper bags in various sizes, including ‘large’, . . . and concludes that the substitution of orange plastic for the crepe paper of Holiday and the paper bags of Shapiro would be an obvious design choice. . . . Yet this reference-by-reference, limitation-by-limitation analysis fails to demonstrate how the Holiday and Shapiro references teach or suggest their combination with the conventional trash or lawn bags to yield the claimed invention. See *Rouffer* . . . (noting Board’s failure to explain, when analyzing the prior art, ‘what specific understanding or technical principle . . . would have suggested the combination’). Because we do not discern any finding by the Board that there was a suggestion, teaching, or motivation to combine the prior art references cited against the pending claims, the Board’s conclusion of obviousness, as a matter of law, cannot stand.”<sup>101</sup>

175 F.3d at 1000, 50 USPQ2d at 1617-18.

See also *Ecocochem, Inc. v. Southern California Edison Co.*, 227 F.3d 1361, 1374, 56 USPQ2d 1065, 1975 (Fed. Cir. 2000), *cert. denied*, 532 U.S. 974 (2001) (a district court’s “reference-by-reference, limitation-by-limitation analysis wholly fails to demonstrate how the prior art teaches or suggests the combination claimed in the . . . patent.”).

<sup>100</sup> *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002). See § 11.03[1][e][iii][A]. Compare *In re Huston*, 308 F.3d 1267, 1280, 1283, 64 USPQ2d 1801 (Fed. Cir. 2002) (unlike *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), the Board did not rely merely on “common knowledge” and “common sense” to find a motivation to combine the references; it made a “passing reference” to such knowledge and sense, but, in fact, it found the motivation in the prior references themselves.”; *PROST, DISSENTING IN PART:* “. . . I cannot agree that the Board’s conclusions as to the combination of [the two references] are ‘cryptic’—they are nonexistent.”); *In re Thrift*, 298 F.3d 1357, 1364, 63 USPQ2d 2002 (Fed. Cir. 2002) (an examiner and the PTO Board provided clear documentation of its reasoning in rejecting an applicant’s claim

(Re:90-1103 Pub.525)

knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference.”<sup>101</sup>

“The factual inquiry whether to combine references must be thorough and searching. . . . It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) (‘a showing of a suggestion, teaching, or motivation to combine the prior art references is an “essential component of an obviousness holding”’ (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) (‘Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.’); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (‘“teachings of references can be combined *only* if there is some suggestion or incentive to do so.”’) (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)). . . . The need for specificity pervades this authority. See, e.g., *In re Konzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (‘particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed’); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) (‘even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of

1, but they failed to provide an adequate ground for rejecting the applicant’s claims 11 and 14; ‘Recently, in *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002), we held that the Board’s reliance on ‘common knowledge and common sense’ did not fulfill the agency’s obligation to cite references to support its conclusions. . . . This documentation also allows effective judicial review.’; CLEAR IDENTIFICATION OF MOTIVATION TO COMBINE: ‘In the present case, the reasoning articulated by the Board is exactly the type of reasoning required by *In re Lee*. Both the examiner and the Board clearly identified a motivation to combine the references . . . .’). See also *National Steel Car, Ltd. v. Canadian Pacific Railway, Ltd.*, 254 F. Supp.2d 527, 566 (E.D. Pa. 2003) (citing *Lee*; ‘When inquiring as to the facts surrounding whether there was a suggestion, teaching, or motivation to combine the prior art references, a Court must be thorough and searching.’).

<sup>101</sup> 277 F.3d at 1343.

found on the obligation of the agency to make the necessary findings and to provide an administrative record showing the evidence on which the findings are based, accompanied by the agency's reasoning in reaching its conclusions. 5 U.S.C.A. § 551 et seq.

#### Board of Patent Appeals and Interferences rejected all claims of inventor's patent application directed toward method of automatically displaying functions of video display device that demonstrated how to select and adjust functions in order to facilitate response by user. Inventor appealed. The Court of Appeals, Pauline Newman, Circuit Judge, held that analysis by Board did not comport with either legal requirements for determination of obviousness or with requirements of Administrative Procedure Act (APA).

1. Patents  $\cong$ 113(6) Tribunals of the Patent and Trademark Office (PTO) are governed by the Administrative Procedure Act (APA), and their rulings receive the same judicial deference as do tribunals of other administrative agencies. 5 U.S.C.A. § 551 et seq.

2. Administrative Law and Procedure  $\cong$ 185, 507 For judicial review to be meaningfully achieved within the strictures of the Administrative Procedures Act (APA), an agency tribunal must present a full and reasoned explanation of its decision; the agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts. 5 U.S.C.A. § 706(2).

3. Patents  $\cong$ 113(6) Judicial review of a decision of the Board of Patent Appeals and Interferences denying an application for a patent is

4. Patents  $\cong$ 31.1 As applied to the determination of patentability, vel non when the issue is obviousness, it is fundamental that the rejection of a patent application must be based on evidence comprehended by the language of the statute addressing obviousness. 35 U.S.C.A. § 103.

5. Patents  $\cong$ 16.5(1) The patent examination process centers on prior art and the analysis thereof when patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. 35 U.S.C.A. § 103.

6. Patents  $\cong$ 26(1) In the context of an obviousness determination by the Board of Patent Appeals and Interferences, the factual inquiry whether to combine references must be thorough and searching; it must be based on objective evidence of record. 35 U.S.C.A. § 103.

7. Patents  $\cong$ 111 Analysis of invention by Board of Patent Appeals and Interferences did not comport with either legal requirements for determination of obviousness or with requirements of Administrative Procedure Act (APA) on basis that agency tribunal did not set forth findings and explanations needed for reasoned decisionmaking; examiner used conclusory statements to support his subjective belief that it was obvi-

ous that person skilled in the art would have been motivated to combine prior art, and Board rejected need for any specific hint or suggestion in particular reference to support combination of prior art. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

#### 8. Patents $\cong$ 26(1)

In an obviousness determination, the factual question of motivation to combine prior art is material to patentability, and cannot be resolved on subjective belief and unknown authority. 35 U.S.C.A. § 103.

#### 9. Patents $\cong$ 26(1), 111

In an obviousness determination under patent law, it is improper, in determining whether a person of ordinary skill would have been led to combine references, simply to use that which the inventor taught against its teacher; thus, the Board of Patent Appeals and Interferences must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

#### 10. Administrative Law and Procedure $\cong$ 507

Deferential judicial review under the Administrative Procedure Act (APA) does not relieve the agency of its obligation to develop an evidentiary basis for its findings; to the contrary, the APA reinforces this obligation. 5 U.S.C.A. § 706(2).

#### 11. Administrative Law and Procedure

##### $\cong$ 763, 796

In the context of judicial review under the Administrative Procedure Act (APA), a decision by an agency tribunal that has an omission of a relevant factor required by precedent is both legal error and "arbitrary agency action." 5 U.S.C.A. § 551 et seq.

See Publication Words and Phrases for other judicial constructions and definitions.

12. Administrative Law and Procedure  $\cong$ 405, 760 The foundation of the principle of judicial deference under the Administrative Procedures Act (APA) to the rulings of agency tribunals is that the tribunal has specialized knowledge and expertise, such that when reasoned findings are made, a reviewing court may confidently defer to the agency's application of its knowledge in its area of expertise; however, reasoned findings are critical to the performance of agency functions and judicial reliance on agency competence. 5 U.S.C.A. § 706(2).

#### 13. Patents $\cong$ 16(1)

The determination of patentability on the ground of unobviousness is ultimately one of judgment; in furtherance of the judicial process, the patent examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. 35 U.S.C.A. § 103.

#### 14. Patents $\cong$ 16(3), 104, 111

In the context of an obviousness determination, the patent examiner and the Board of Patent Appeals and Interferences are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of the person having ordinary skill in the art to which said subject matter pertains. 35 U.S.C.A. § 103.

#### 15. Patents $\cong$ 104

In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board of Patent Appeals and Interferences are presumed to act from the viewpoint of a person having ordinary skill in the art to which the subject matter pertains; thus, when they rely on what they assert to be general knowledge to

negate patentability, that knowledge must be articulated and placed on the record

and the failure to do so is not consistent with either effective administrative procedure or effective judicial review. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

#### 16. Patents

In the context of an obviousness determination, the Board of Patent Appeals and Interferences cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies. 5 U.S.C.A. § 706(2); 35 U.S.C.A. § 103.

#### 17. Administrative Law and Procedure

326, 485, 507

Sound administrative procedure requires that an agency apply the law in accordance with statute and precedent; the agency tribunal must make findings of relevant facts, and present its reasoning in sufficient detail that the court may conduct meaningful review of the agency action. 5 U.S.C.A. § 706(2).

#### 18. Patent

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#### 10. A method for automatically displaying

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#### comprising:

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#### determining if a demonstration mode

is selected;

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if said demonstration mode is selected;

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automatically entering a picture adjustment mode having a picture menu

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screen displaying a list of a plurality of

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picture functions; and

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automatically demonstrating, selecting

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and adjustment of individual ones of said

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plurality of picture functions.

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The examiner rejected the claims on the

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ground of obviousness, citing the combination

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of two references: United States Patent No. 4,626,892 to Nortrup, and the Thunderchopper Helicopter Operations Handbook, Operations Manual.

10

The examiner rejected the claims on the

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ground of obviousness, citing the combination

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of two references: United States Patent No. 4,626,892 to Nortrup, and the Thunderchopper Helicopter Operations Handbook, Operations Manual.

PAULINE NEWMAN, Circuit Judge

Sang-Su Lee appeals the decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office, rejecting all of the claims of Lee's patent application Serial No. 07/631,210 entitled "Self-Diagnosis and Sequential-Display Method of Every Function."

We vacate the Board's decision for failure to meet the adjudicative standards found in the Administrative Procedure Act, and remand for further proceedings.

#### The Prosecution Record

Mr. Lee's patent application is directed to a method of automatically displaying the functions of a video display device and demonstrating how to select and adjust the

functions in order to facilitate response by the user. The display and demonstration are achieved using computer-managed electronics, including a pulse-width modulator and auto-fine-tuning pulses, in accordance with procedures described in the specification. Claim 10 is representative:

10. A method for automatically displaying functions of a video display device comprising:

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determining if a demonstration mode

is selected;

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if said demonstration mode is selected;

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automatically entering a picture adjustment mode having a picture menu

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screen displaying a list of a plurality of

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support combining the Nortrup and Thunderhopper references, the Board held, as stated *supra*, that a "specific hint or suggestion" of motivation to combine was not required.

*Judicial Review*

[1] Tribunals of the PTO are governed by the Administrative Procedure Act, and their rulings receive the same judicial deference as do tribunals of other administrative agencies. *Dickinson v. Zwicko*, 527 U.S. 150, 119 S.Ct. 1816, 144 L.Ed.2d 143, 50 USPQ2d 1830 (1999). Thus on appeal we review a PTO Board's findings and conclusions in accordance with the following criteria:

5 U.S.C. § 706(2) The reviewing court shall—

(2) hold unlawful and set aside agency actions, findings, and conclusions found to be—  
(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

\* \* \* \*

(E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of an agency hearing provided by statute;

\* \* \* \*

[2, 3] For judicial review to be meaningfully achieved within these strictures, the agency tribunal must present a full and reasoned explanation of its decision. The agency tribunal must set forth its findings and the grounds thereof, as supported by the agency record, and explain its application of the law to the found facts. The Court has often explained:

The Administrative Procedure Act, which governs the proceedings of administrative agencies and related judicial review, establishes a scheme of "reasoned decisionmaking." Not only must an agency's decree result be within the ensuing precedent. The patent examiner

scope of its lawful authority, but the process by which it reaches that result must be logical and rational.

*Allentown Mack Sales and Service, Inc. v. National Labor Relations Bd.*, 522 U.S. 359, 374, 118 S.Ct. 818, 139 L.Ed.2d 797 (1998) (citation omitted). This standard requires that the agency not only have reached a sound decision, but have articulated the reasons for that decision. The reviewing court is thus enabled to perform meaningful review within the strictures of the APA, for the court will have a basis on which to determine "whether the decision was based on the relevant factors and whether there has been a clear error of judgment." *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416, 91 S.Ct. 814, 28 L.Ed.2d 136 (1971). Judicial review of a Board decision denying an application for patent is thus founded on the obligation of the agency to make the necessary findings and to provide an administrative record showing the evidence on which the findings are based, accompanied by the agency's reasoning in reaching its conclusions. *See In re Zurko*, 25 F.3d 1379, 1386, 59 USPQ2d 1693, 1694 (Fed. Cir. 2001) (review is on the administrative record); *In re Gartside*, 203 F.3d 1306, 1314, 53 USPQ2d 1789, 1774 (Fed. Cir. 2000) (Board decision "must be justified within the four corners of the record")

[4, 5] As applied to the determination of patentability *vel non* when the issues of obviousness, "it is fundamental that relevant evidence of that section." *In re Grossel*, 713 F.2d 731, 739, 218 USPQ 769, 775 (Fed.Cir.1983). The essential factual evidence on the issue of obviousness is set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 86 S.Ct. 684, 15 L.Ed.2d 545, 148 USPQ 459, 467 (1966) and extensive

tion process centers on prior art and the analysis thereof. When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness.

*See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52, 60 USPQ2d 1001, 1008 (Fed.Cir.2001) ("the central question is whether there is reason to combine [the] references," a question of fact drawing on the *Graham* factors).

[6] "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. *See, e.g., Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed.Cir.2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" (quoting *C.R. Bard, Inc. v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1222 (Fed.Cir. 1998)); *In re Dembiczaik*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed.Cir.1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dancic*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed.Cir.1998) ("there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant, *In re Fina*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed.Cir. 1988), ("teachings of references can be combined *only* if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Morrin*

The need for specificity pervades this authority. *See, e.g., In re Kotzak*, 217 F.3d 1865, 1871, 55 USPQ2d 1313, 1317 (Fed. Cir.2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed.Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed.Cir.1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally supported the selection and combination of the Nortrup and Thunderhopper references to render obvious that which Lee described. The examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. This factual question

of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." *W.L. Gore v. Gor-lock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 308, 312-13 (Fed.Cir.1983). Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion.

[10] Differential judicial review under the Administrative Procedure Act does not relieve the agency of its obligation to develop an evidentiary basis for its findings. To the contrary, the Administrative Procedure Act reinforces this obligation. See, e.g., *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 77 L.Ed.2d 443 (1983) ("the agency must examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made.") (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962); *Securities & Exchange Comm'n v. Chemery Corp.*, 318 U.S. 80, 94, 63 S.Ct. 454, 87 L.Ed. 626 (1943) ("The orderly function of the process of review requires that the grounds upon which the administrative agency acted are clearly disclosed and adequately sustained."))

[11] In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action. See *Motor Vehicle Manufacturers*, 463 U.S. at

43, 103 S.Ct. 2856 ("an agency rule would be arbitrary and capricious if the agency ... entirely failed to consider an important aspect of the problem"); *Milliken*, 50 F.3d 990, 1002 (Fed.Cir.1995) ("It is well established that agencies have a duty to provide 'reviewing courts with a sufficient explanation for their decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action.'"). As discussed in *National Labor Relations Bd. v. American Property Mgt. Corp.*, 817 F.2d 74, 75 (9th Cir.1987), an agency is "not free to refuse to follow circuit precedent."

[12] The foundation of the principle of judicial deference to the rulings of agency tribunals is that the tribunal has specialized knowledge and expertise, such that when reasoned findings are made, a viewing court may confidently defer to the agency's application of its knowledge in its area of expertise. Reasoned findings are critical to the performance of agency functions and judicial reliance on agency competence. See *Baltimore & Ohio R.R. Co. v. Aberdeen & Rockfish R.R. Co.*, 395 U.S. 87, 91-92, 89 S.Ct. 280, 21 L.Ed.2d 219 (1968) (absent reasoned findings in isolation, outweigh the dozens of rulings of the Federal Circuit and the Court of Customs and Patent Appeals that determine patentability must be based on new evidence). This court has remarked, in *Smiths Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 188 F.3d 1347, 1356, 51 USPQ2d 1415, 1421 (Fed.Cir.1999), that Bozek's reference to common knowledge "does not in and of itself make it so" absent evidence of such knowledge.

[13] In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action. See *Motor Vehicle Manufacturers*, 463 U.S. at

examination procedure serves both to find, and to place on the official record, that which has been considered with respect to patentability. The patent examiner and the Board are deemed to have experience in the field of the invention; however, this experience, insofar as applied to the determination of patentability, must be applied from the viewpoint of "the person having ordinary skill in the art to which said subject matter pertains," the words of section 103. In finding the relevant facts, in assessing the significance of the prior art, and in making the ultimate determination of the issue of obviousness, the examiner and the Board are presumed to act from this viewpoint. Thus when they rely on what they assert to be general knowledge to negate patentability, that knowledge must be articulated and placed on the record. The failure to do so is not consistent with either effective administrative procedure or effective judicial review. The board cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which it relies.

#### Alternative Grounds

At oral argument the PTO Solicitor proposed alternative grounds on which this court might affirm the Board's decision. However, as stated in *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962), "courts may not accept appellate counsel's *post hoc* rationalization for agency action."

Consideration by the appellate tribunal of new agency justifications deprives the aggrieved party of a fair opportunity to support its position; thus review of an administrative decision must be made on the grounds relied on by the agency. "If those grounds are inadequate or improper, the court is powerless to affirm the administrative action by substituting what it considers to be better grounds." *Id.* at 169, 83 S.Ct. 239, 9 L.Ed.2d 207 (1962).

[13-16] The determination of patentability on the ground of unobviousness is ultimately one of judgment. In furtherance of the judgmental process, the patent

